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FIG. 1

APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
DRAFTSMAN	435
	199

T02220" 846T 60

GACCGCGGCAGCTCAGCCTCCCGCCGATTGTATGTTCCAGGCCTCAATGAGGAGTCCAAA 60
 M E P F K Q Q K V E D F Y D I G E E L G 20
 CATGAGCCATTCAAGCAGCAGAAGGTGGAGGACTTTTATGACATCGGAGAGGAGCTGGG 120
 S G Q F A I V K K C R E K S T G L E Y A 40
 GAGTGGCCAGTTTGCCATCGTGAAGAAGTGCCGGGAGAAGAGCACGGGGCTTGAGTATGC 180
 A K F I K K R Q S R A S R R G V S R E E 60
 AGCCAAGTTCATCAAGAAGCGGCAGAGCCGGGCGAGCCGGCGCGGTGTGAGCCGGGAGGA 240
 I E R E V S I L R Q V L H H N V I T L H 80
 GATCGAGCGGGAGGTGAGCATCCTGCGGCAGGTGCTGCACCACAATGTCATCACGCTGCA 300
 D V Y E N R T D V V L I L E L V S G G E 100
 CGACGTCTATGAGAACCGCACCGACGTGGTGTCTATCCTTGAGCTAGTGTCTGGAGGAGA 360
 L F D F L A Q K E S L S E E E A T S F I 120
 GCTCTTCGATTTCTGGCCCAAGGAGTCACTGAGTGAGGAGGAGGCCACCAGCTTCAT 420
 K Q I L D G V N Y L H T K K I A H F D L 140
 TAAGCAGATCCTGGATGGGGTGAACCTTACACAAAGAAAATTGCTCACTTTGATCT 480
 K P E N I M L L D K N I P I P H I K L I 160
 CAAGCCAGAAAACATTATGTTGTTAGACAAGAATATTCCCATTCCACACATCAAGCTGAT 540
 D F G L A H E I E D G V E F K N I F G T 180
 TGACTTTGGTCTGGCTCACGAAATAGAAGATGGAGTTGAATTTAAGAATATTTTTGGGAC 600
 P E F V A P E I V N Y E P L G L E A D M 200
 GCCGGAATTTGTTGCTCCAGAAATTGTGAACCTACGAGCCCCTGGGTCTGGAGGCTGACAT 660
 W S I G V I T Y I L L S G A S P F L G D 220
 GTGGAGCATAGGCGTCATCACCTACATCCTCTTAAGTGGAGCATCCCCTTTCTGGGAGA 720
 T K Q E T L A N I T S V S Y D F D E E F 240
 CACGAAGCAGGAAACACTGGCAAATATCACATCAGTGAGTTACGACTTTGATGAGGAATT 780
 F S H T S E L A K D F I R K L L V K E T 260
 CTTACGCCATACGAGCGAGCTGGCCAAGGACTTTATTCCGGAAGCTTCTGGTTAAAGAGAC 840
 R K R L T I Q E A L R H P W I T P V D N 280
 CCGGAAACGGCTCACAATCCAAGAGGCTCTCAGACACCCCTGGATCACGCCGGTGGACAA 900
 Q Q A M V R R E S V V N L E N F R K Q Y 300
 CCAGCAAGCCATGGTGCAGGAGGAGTCTGTGGTCAATCTGGAGAAGCTTCAGGAAGCAGTA 960
 V R R R W K L S F S I V S L C N H L T R 320
 TGTCCGCGAGGCGGTGGAAGCTTTCTCTCAGCATCGTGTCCCTGTGCAACCACCTCACCCG 1020
 S L M K K V H L R P D E D L R N C E S D 340
 CTCGCTGATGAAGAAGGTGCACCTGAGGCCGGATGAGGACCTGAGGAAGTGTGAGAGTGA 1080
 T E E D I A R R K A L H P R R R S S T S 360
 CACTGAGGAGGACATCGCCAGGAGGAAAGCCCTCCACCCACGGAGGAGGAGCAGCACCTC 1140
 CTAACTGGCCTGACCTGCAGTGGCCGCCAGGGAGGTTTGGGCCCAGCGGGGCTCCCTTCT 1200
 GTGCAGACTTTTGGACCCAGCTCAGCACCAGCACCCGGGCGTCTGAGCACTTTGCAAGA 1260
 GAGATGGGCCCCAAGGAATTGAGAAGAGCTTGCAAGCAAGCCAGGAGACCCTGGGAGCTGT 1320
 GGCTGTCTTCTGTGGAGGAGGCTCCAGCATTCCCAAAGCTCTTAATTCTCCATAAAATGG 1380
 GCTTTCTCTGTCTGCCATCCTCAGAGTCTGGGGTGGGAGTGTGGACCTAGGAAAACAAT 1440
 ATAAAGGACATCCTCATCATCACGGGGTGAAGGTCAGAGTAAGGCAGCCTTCTTCACAGG 1500
 CTGAGGGGGTTCAGAACCAGCCTGGCCAAAATTACACCAGAGAGACAGAGTCTCCTCCCA 1560
 TTGGGAACAGGGTGATTGAGGAAAGTGAACCTTGGGTGTGAGGGACCAATCCTGTGACCT 1620
 CCCAGAACCATGGAAGCCAGGACGTCAGGCTGACCAACACCTCAGACCTTCTGAAGCAGC 1680
 CCATTGCTGGCCCGCCATGTTGTAATTTTGTCTATTTTATTAAActtctggtttacctg 1740
 aa 1742

FIG. 2A

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
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FO2220" 84267260

DAP-kinase	13	YDTGGEELGSGQFAVVKKCREKSTGLQYAAKFIK
ZIP-kinase	13	YEMGEELGSGQFAIVRKCRQKGTGKEYAAKFIK
DRP-1	13	YDIGEELGSGQFAIVKKCREKSTGLE YAAKFIK
DRAK1	61	LCPGRELGRGKFAVVRKCIKKD SGKEFAAKFMR
DRAK2	33	ILTSKELGRGKFAVVRQCI SKSTGQ EYAAKF LK
DAP-kinase	46	KRR TKSSRRGVSR E D I E R E V S I L K E I - Q H P N V I
ZIP-kinase	46	KRR LSSRRGVSR E E I E R E V N I L R E I - R H P N I I
DRP-1	46	KR QSRASRRGVSR E E I E R E V S I L R Q V - L H H N V I
DRAK1	94	KRR - - - - K G Q D C R M E I I H E I A V L E L A Q D N P W V I
DRAK2	66	KRR - - - - R G Q D C R A E I L H E I A V L E L A K S C P R V I
DAP-kinase	78	T L H E V Y E N K T D V I L I L E L V A G G E L F D - F L A E K -
ZIP-kinase	78	T L H D I F E N K T D V V L I L E L V S G G E L F D - F L A E K -
DRP-1	78	T L H D V Y E N R T D V V L I L E L V S G G E L F D - F L A Q K -
DRAK1	123	N L H E V Y E T A S E M I L V L E Y A A G G E I F D Q C V A D R E
DRAK2	95	N L H E V Y E N T S E I I L I L E Y A A G G E I F S L C L P E L A
DAP-kinase	109	E S L T E E E A T E F L K Q I L N G V Y Y L H S L Q I A H F D L K
ZIP-kinase	109	E S L T E D E A T Q F L K Q I L D G V H Y L H S K R I A H F D L K
DRP-1	109	E S L S E E E A T S F I K Q I L D G V N Y L H T K K I A H F D L K
DRAK1	156	E A F K E K D V Q R L M R Q I L E G V H F L H T R D V V H L D L K
DRAK2	128	E M V S E N D V I R L I K Q I L E G V Y Y L H Q N N I V H L D L K
DAP-kinase	142	P E N I M L L D R N V P K P R I K I I D F G L A H K I D F G N E F
ZIP-kinase	142	P E N I M L L D K N V P N P R I K L I D F G I A H K I E A G N E F
DRP-1	142	P E N I M L L D K N I P I P H I K L I D F G L A H E I E D G V E F
DRAK1	189	P Q N I L L T S E S P L G D - I K I V D F G L S R I L K N S E E L
DRAK2	161	P Q N I L L S S I Y P L G D - I K I V D F G M S R K I G H A C E L
DAP-kinase	175	K N I F G T P E F V A P E I V N Y E P L G L E A D M W S I G V I T
ZIP-kinase	175	K N I F G T P E F V A P E I V N Y E P L G L E A D M W S I G V I T
DRP-1	175	K N I F G T P E F V A P E I V N Y E P L G L E A D M W S I G V I T
DRAK1	221	R E I M G T P E Y V A P E I L S Y D P I S M A T D M W S I G V I T
DRAK2	193	R E I M G T P E Y L A P E I L N Y D P I T T A T D M W N I G I T I A
DAP-kinase	208	Y I L L S G A S P F L G D T K Q E T L A N V S A V N Y E F E D E Y
ZIP-kinase	208	Y I L L S G A S P F L G E T K Q E T L T N I S A V N Y D F D E E Y
DRP-1	208	Y I L L S G A S P F L G D T K Q E T L A N I T S V S Y D F D E E F
DRAK1	254	Y V M L T G I S P F L G N D K Q E T F L N I S Q M N L S Y S E E E
DRAK2	226	Y M L L T H T S P F V G E D N Q E T Y L N I S Q V N V D Y S E E T
DAP-kinase	241	F S N T S A L A K D F I R R L L V K D P K K R M T I Q D S L Q H P
ZIP-kinase	241	F S N T S E L A K D F I R R L L V K D P K R R M T I A Q S L E H S
DRP-1	241	F S H T S E L A K D F I R K L L V K E T R K R L T I Q E A L R H P
DRAK1	287	F D V L S E S A V D F I R T L L V K K F E D R A T A E E C L K H P
DRAK2	259	F S S V S O L A T D F I Q S L L V K N P E K R P T A E I C L S H S
DAP-kinase	274	W I
ZIP-kinase	274	W I
DRP-1	274	W I
DRAK1	320	W L
DRAK2	292	W L

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APPROVED	O.G. FIG.	CLASS	SUBCLASS
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FIG. 2B

DAP-kinase	1	NMEKFKK---FAARKKWKOSVRLISLCORLSR	29
DRP-1	1	NLENFRK---QYVRRRWKLSFSIVSLCNHLTR	29
smMLCK	1	SKDRMKK---YMARRKWQKTGHAVRAIGRLSS	29
CaMKIIa	1	TVDCCLKK---LNARRKLKGAILTTMLATRNFS	29
CaMKI	1	VSEQIKK---NFAKSKWKQAFNAT-AVVRHMR	28
CaMKIV	1	MDTAOKKLQEFNARRKLKAAVKAVVASSRLGS	32
ZIP-kinase	1	GEDSGRK----PERRRLKTTTRLKEYTIKSHSS	28

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APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
	435 194
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FIG. 3C

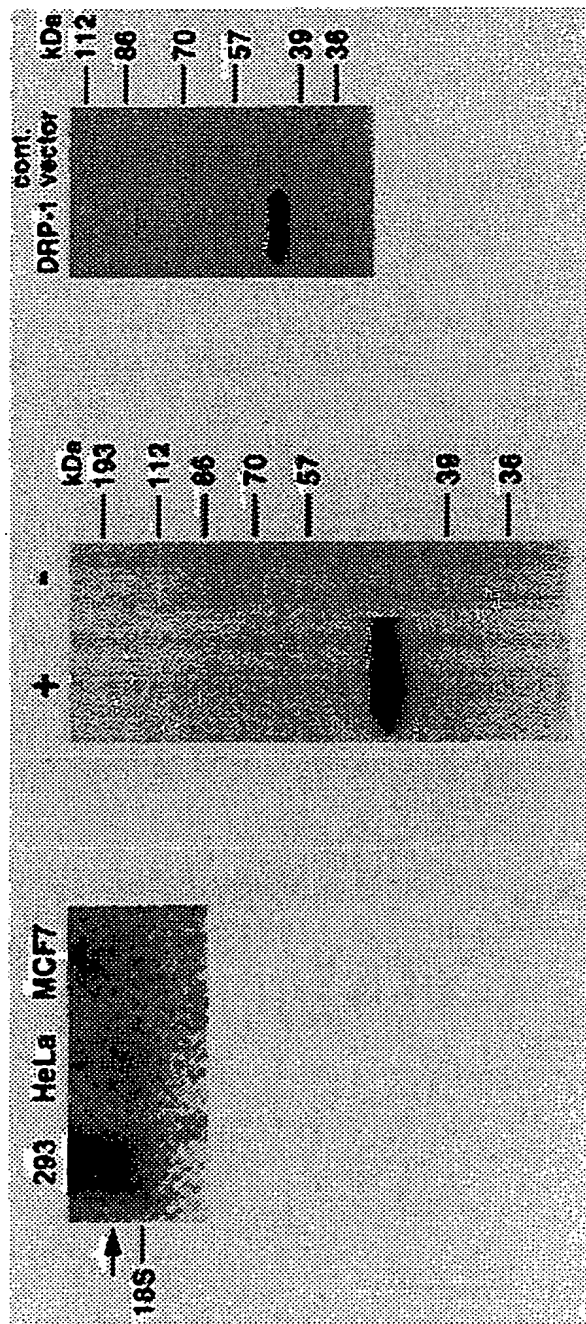


FIG. 3B

FIG. 3A

APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
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FIG. 4A

FIG. 4B

MOCK

DRP-1

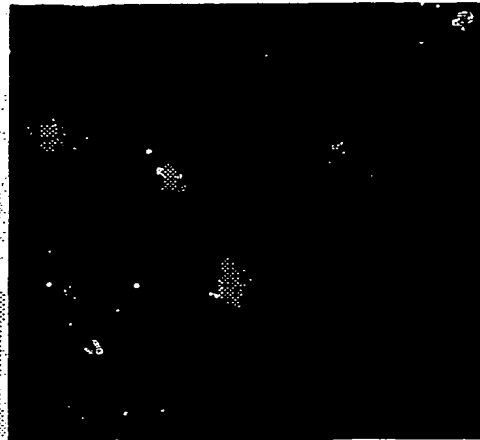
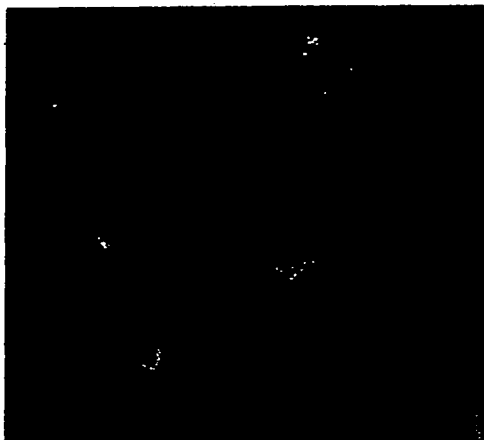
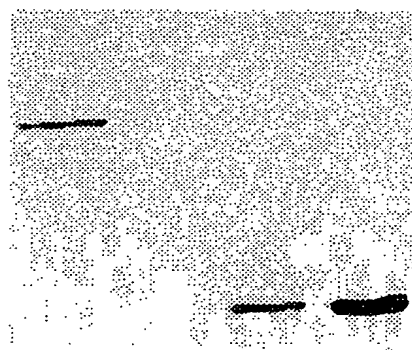


FIG. 4C

DAP-kinase		DRP-1	
InSol	Sol	InSol	Sol



kDa

- 193
- 112
- 86
- 70
- 57
- 39
- 36

FIG. 4A

IP-Kinase

		6 / 16 DRP-1					
		MOCK		K42A		DRP-1	
Ca ²⁺ /CaM		+	-	+	-	+	-

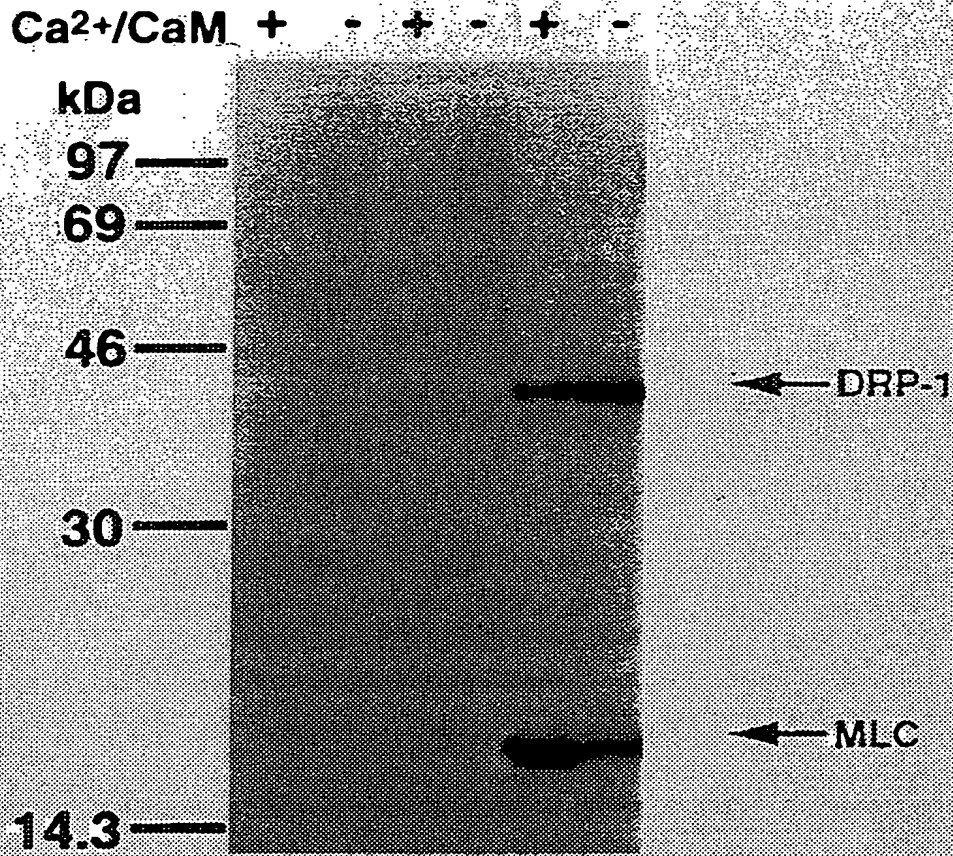
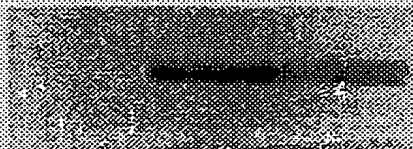


FIG. 5A

FIG. 5B

		DRP-1					
		MOCK		K42A		DRP-1	
Ca ²⁺ /CaM		+	-	+	-	+	-

Western



DRP-1

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BY	CLASS	SUBCLASS
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FIG. 6B

FIG. 6D

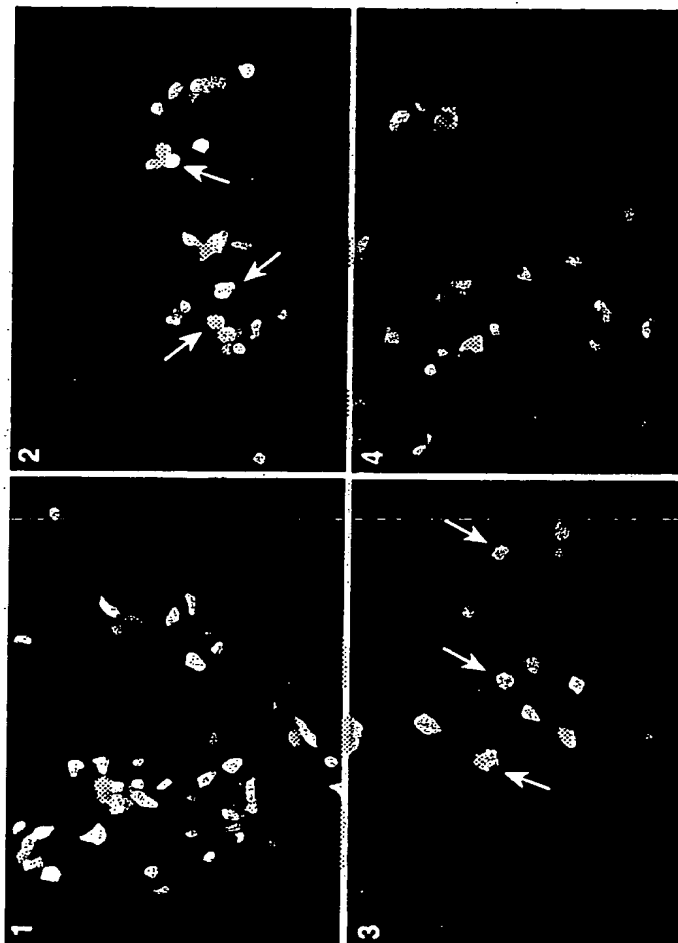


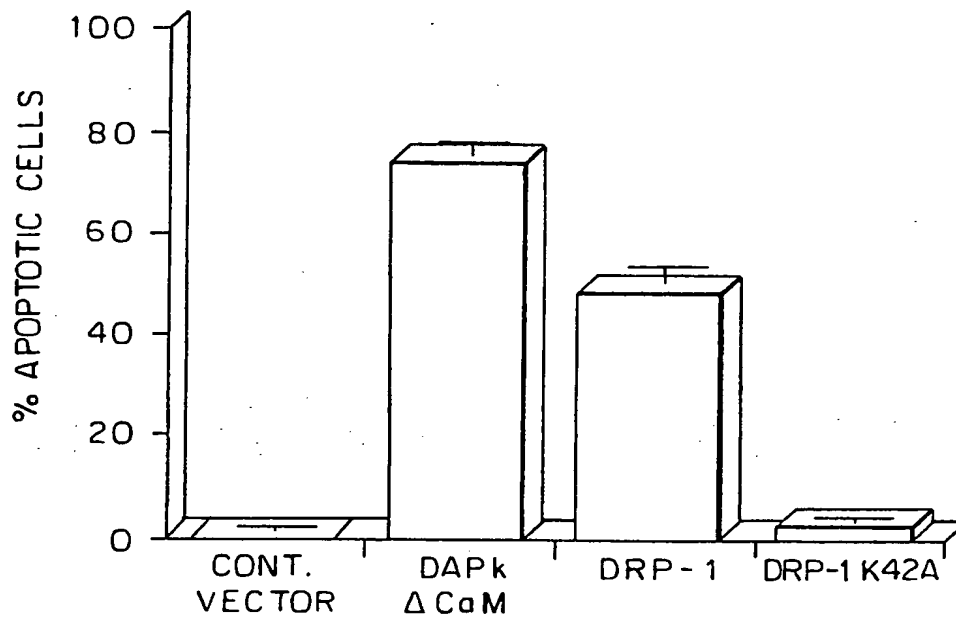
FIG. 6A

FIG. 6C

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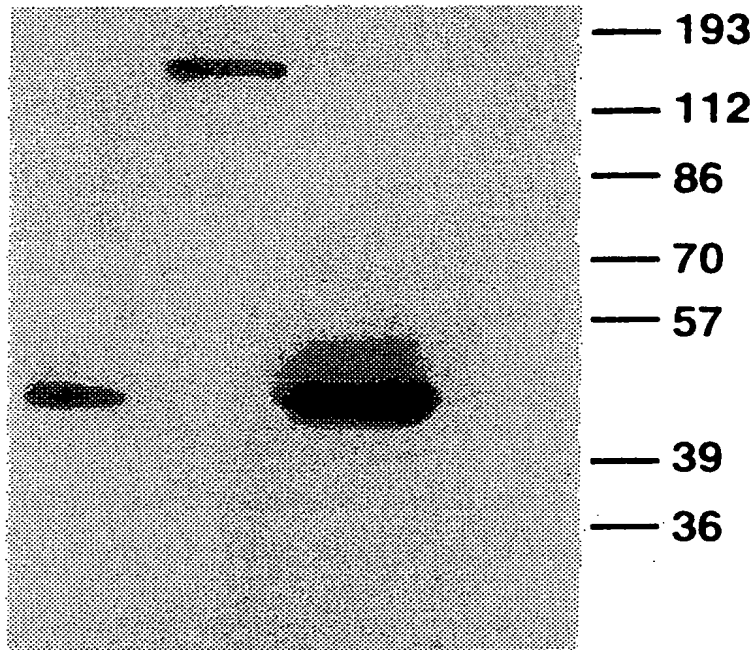
FIG. 7



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FIG. 8A

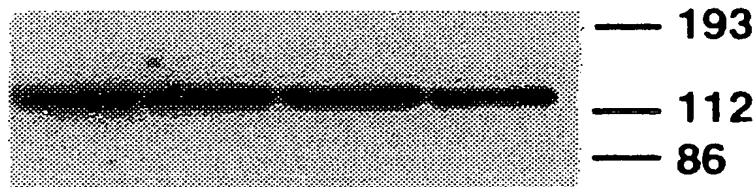
DAPk DRP-1 cont.
DRP-1 Δ CaM K42A vector kDa



Anti-Flag

FIG. 8B

DAPk DRP-1 cont.
DRP-1 Δ CaM K42A vector kDa



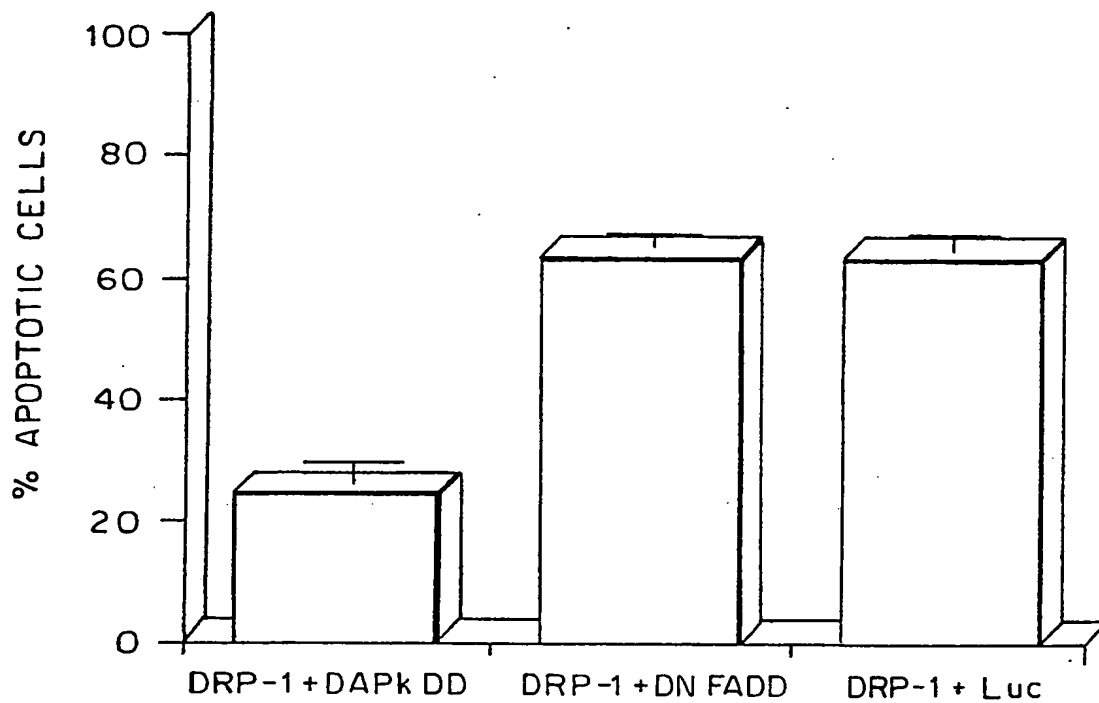
Anti-Vinculin

APPROVED	O.G. FIG.	—
BY	CLASS/SUBCLASS	435/194
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T04220" 84/6T/60

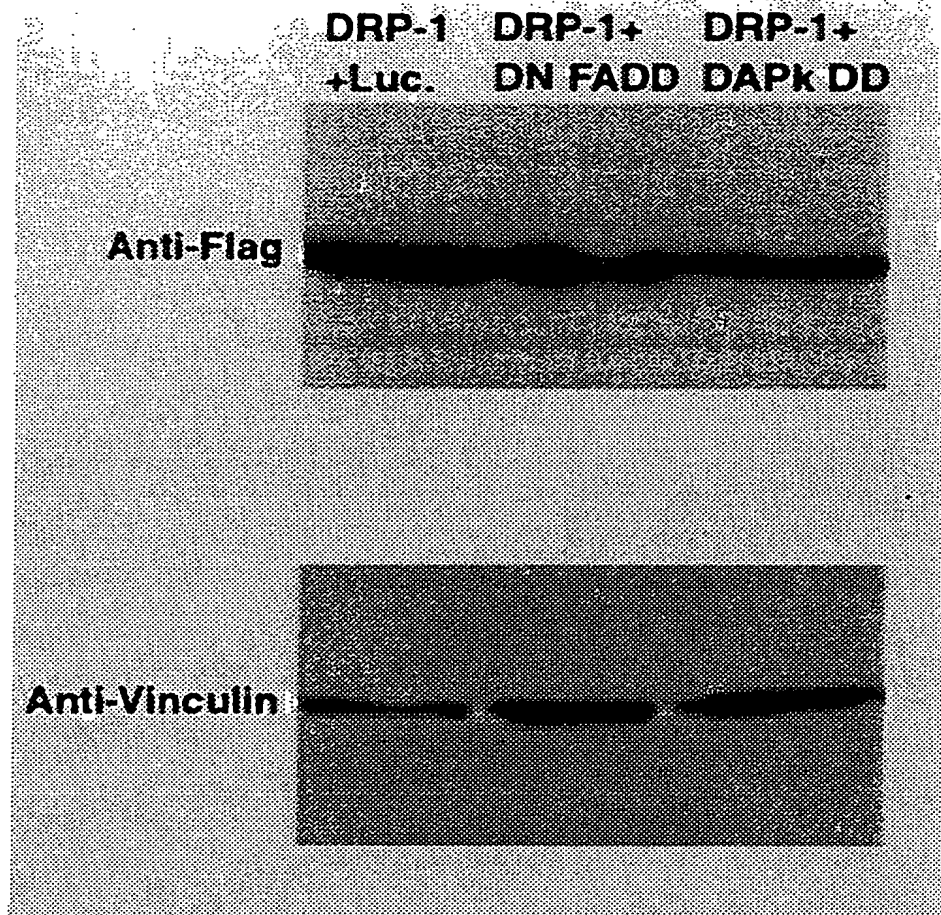
APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY	435	194	
DRAFTSMAN			

FIG. 9A



APPROVED	O.G. FIG.	—
BY	CLASS	SUBCLASS
	435	199
DRAFTSMAN		

FIG. 9B



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APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY	435	199	
DRAFTSMAN			

FIG. 10A

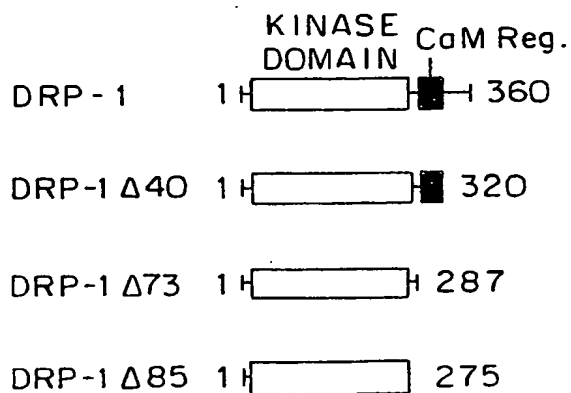
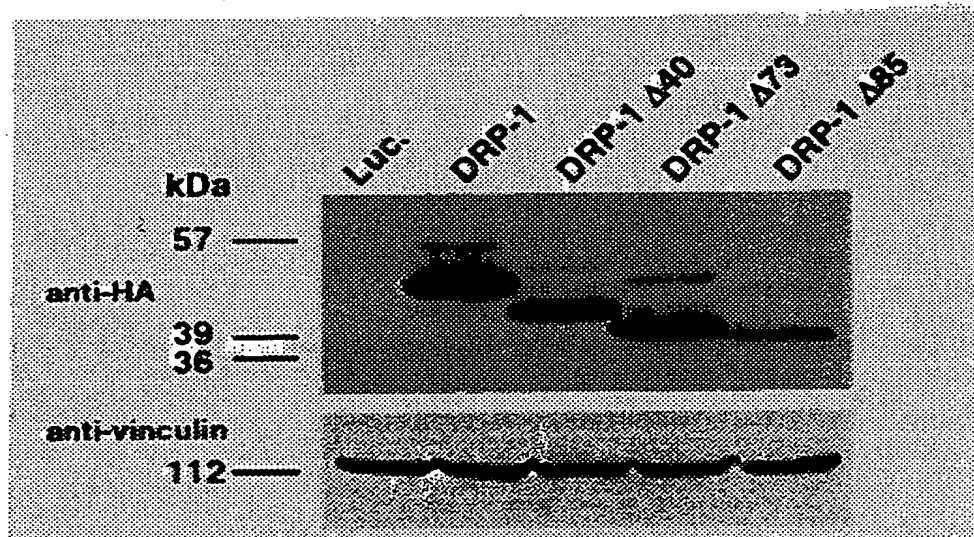


FIG. 10B



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APPROVED	O.G. FIG. —
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DRAFTSMAN	435 194

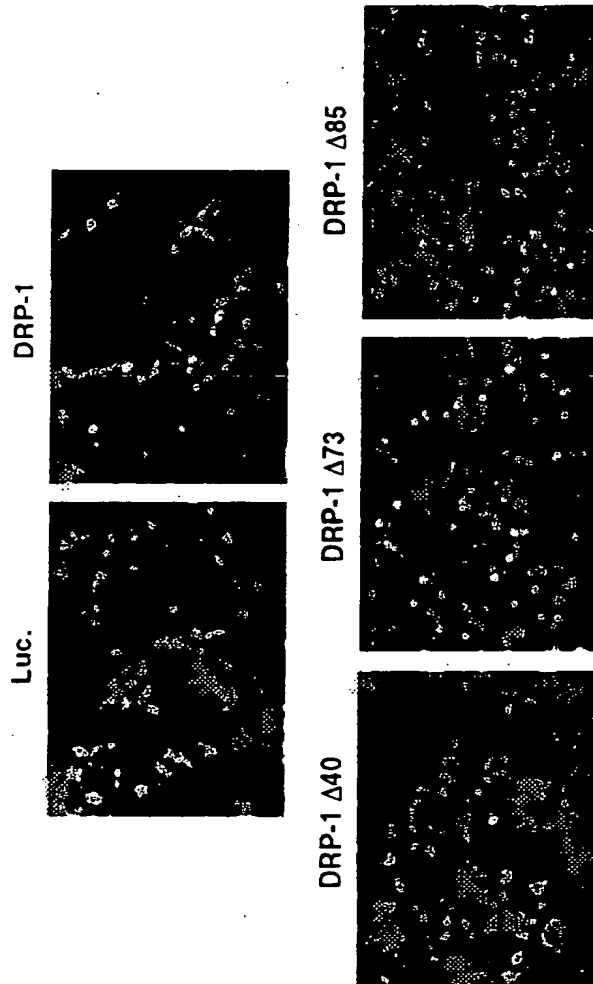
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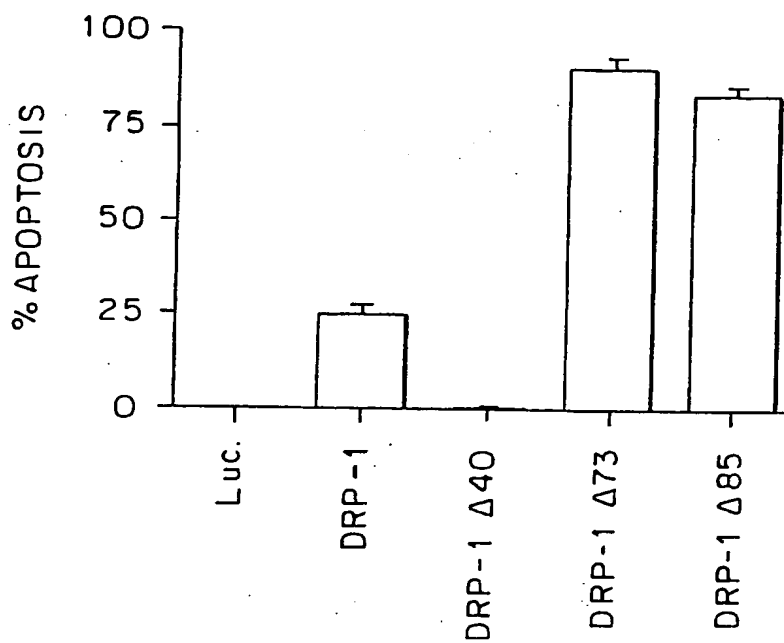
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FIG. 11A



APPROVED	O.G. FIG. —
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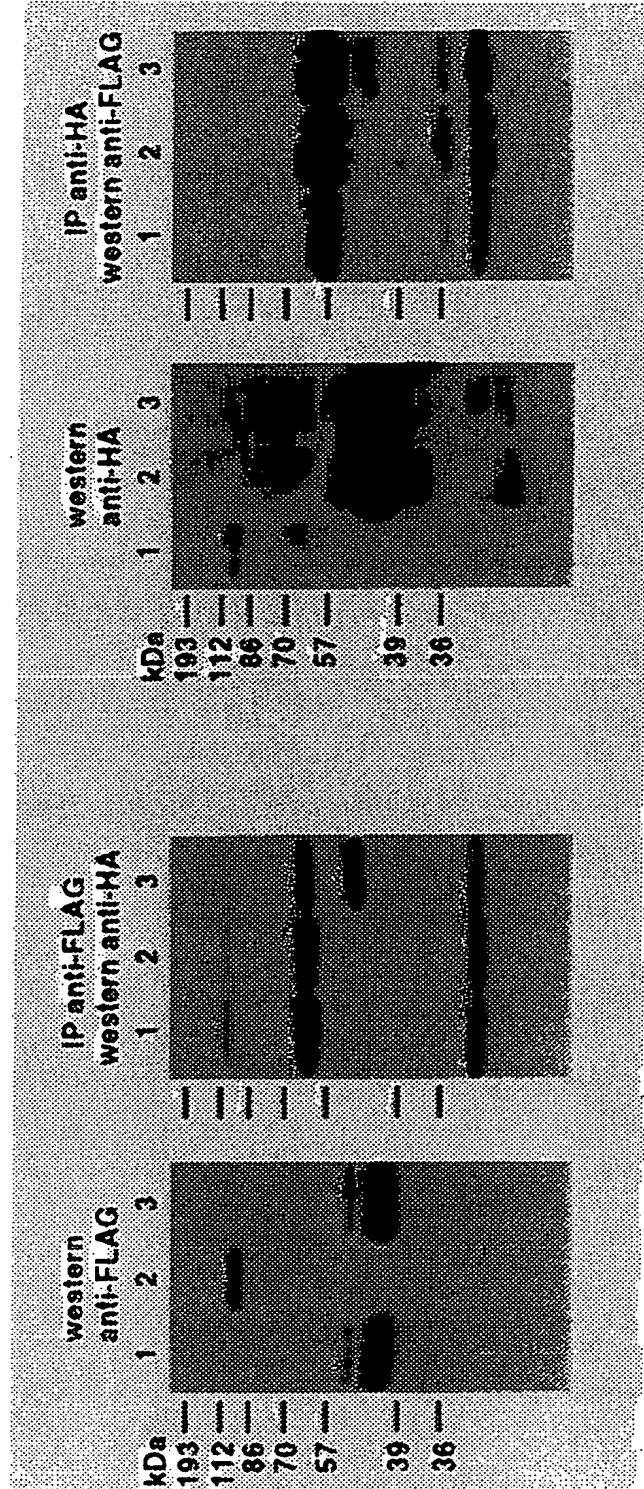
FIG. 11B



APPROVED	O.G. FIG.		
BY	CLASS	SUBCLASS	
	435	194	
DRAFTSMAN			

FO2220" 8426T260

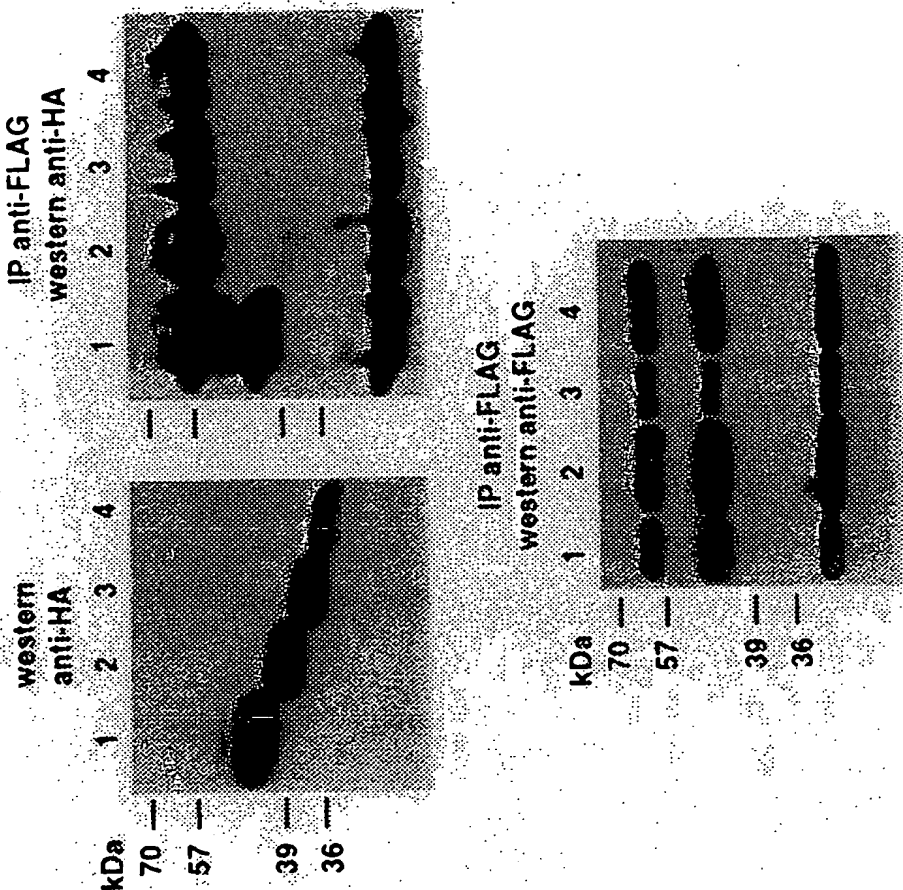
FIG. 12A



APPROVED	O.G. FIG.
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FIG. 12B

FIG. 12B



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